

## ABSTRACT

Methods and compositions for improving the angiogenesis-inhibitory effect of an anti-angiogenic serpin, or anti-angiogenic fragment thereof, by covalently linking a polymer moiety to the serpin such that the biological half-life of the serpin is extended for inhibition of diseases having a pathological angiogenic component including diabetic retinopathy, age-related macular degeneration, rheumatoid arthritis, endometriosis, psoriasis, juvenile hemangioma, and cancer.